

Spring 2016

#### **TIME Program Spring Updates**

BY DAVID L. SPAKOWICZ, TIME PROGRAM MANAGER



I hope everyone made it through another Wisconsin winter. This one wasn't too bad. The warm weather, then the freezing, then warm again was a little bit of a challenge but I am confident everyone made it through without a problem. I think spring is finally here. So that means construction season is ramping up all across the state. With all of

the distracted driving that unfortunately occurs, coupled with the significant amount of construction that is occurring, there is strong concern not only for the safety of all of the construction, highway and WisDOT workers that are working in and around all of the projects, but for the other law abiding motorist as well.

In order to help address the issue of distracted driving in construction zones, Governor Walker signed AB-198 into law on March 30, 2016. Assembly Bill 198, authored by Senator Jerry Petrowski (R-Marathon) and representative John Spiros (R-Marshfield) bans the use of handheld cell phones in highway maintenance or construction areas, or utility work areas, where workers are present and at risk from traffic. The bill makes an exception for drivers using a voice-operated or hands-free device, and allows the use of handheld phones to report an emergency. The law takes effect October 1, 2016. The motoring public has a 30-day grace period before enforcement of the law can be initiated. Hopefully this law will make our construction and maintenance workers a little safer while performing their duties.

There are a lot of great things occurring with the TIME Program. We are in the middle of our "spring tour" of TIME meetings across the state. Attendance is up at all of the meetings. We are presenting a number of special or unique topics at the meetings.

Anywhere from an awareness for all responders on what law enforcement needs to do when conducting a technical reconstruction of a crash at an incident scene, to what needs to be done when a crash involves a carrier transporting the United States Mail, to the DNR's "Spills Protocols". The diversity of topics appears to be well received by the meeting attendees. Please consider attending one of the TIME meetings in your area. They generally only occur twice a year and we try to make sure you will take at least one thing away from the meeting that you didn't know before.

All over the state, TIM responder trainings are way up, we are attending a lot of responder association conferences and we are hosting another Train-the-Trainer class in July. Overall, the program is going very, very well. A large part of the program's success can be attributed to you. You are the ones that are requesting a TIM responder class for your department and then passing the value of the training along to your fellow responders, who in turn, request a training for their department. TIM is all about the safety for all responders that work in and around an incident scene and opening the roadway as soon as possible to avoid secondary crashes and to clear an incident scene as soon as possible.

I hope everyone has a great spring. Please get out and travel across our great state. Whether it's for your summer vacation or just to get out of town for the weekend, our state has plenty to offer. There are so many beautiful areas to visit and great roads to get there! Please travel safely and we hope to see you at a TIME meeting, conference or responder training in the near future. If there is anything the TIME program can do for you, please don't hesitate to ask.

#### **New TIME and ETO Program Assistant**

On March 23, 2016, Naydene Olson joined the TIME and ETO programs as the new Senior Program Assistant. Naydene replaces Julie Diliberti who resigned to pursue another opportunity. Julie did an excellent job supporting both programs and will be missed. Naydene joins the TIME/ETO team with a wealth of experience from the private sector. She is eager to learn about both programs and has already jumped right into the workload. We are confident that you will be receiving a lot of correspondence from Naydene in the near future.

If you ever have any questions or need anything from either the TIME or the ETO programs, please contact Naydene at 414-227-2155 or naydene.olson@dot.wi.gov. Please join us in welcoming Naydene to the team!



Save the date!



#### PRESERVING EVIDENCE IN HEAVY TRUCK CRASHES

When a large truck or bus is involved in a serious crash, the process of evidence collection can be daunting. Oftentimes, the weight, speed, and subsequent kinetic energy possessed by a Commercial Motor Vehicle (CMV) can have devastating results. Crash scenes on major highways may involve multiple vehicles, injured persons, and the increasing threat of secondary incidents as traffic backs up to the incident scene. Fortunately, thanks to vehicle safety measures, driver fitness requirements, and statewide enforcement of the Federal Motor Carrier Safety Regulations, deadly CMV crashes are not an everyday occurrence on Wisconsin's highways. However, when they do occur, it is important to know what steps need to be taken to preserve crash evidence without Armed with this knowledge, responding officers can open roadways in a timely manner without sacrificing the evidence and data collection processes.



#### **HEAVY TRUCK AIR BRAKE SYSTEMS**

Most large commercial motor vehicles use an air-actuated system for braking. When the foot pedal is depressed, compressed air is provided to a brake chamber at each wheel end. Air then forces a push rod out of each chamber which causes movement to slack adjuster and subsequent rotation of what is called an "S-camshaft." This S-camshaft converts the torque applied by the slack adjuster to a force that pushes the brake shoes against the brake drum. It is this friction between the shoes and the drum that causes the wheels to slow and stop. If the individual brake components are not properly maintained, the overall braking efficiency of the system is compromised.



When the S-camshaft is rotated, the shoes are pressed against the brake drum (removed for photograph).



Wisconsin State Patrol Inspector Scott Hlinak checks brake adjustment on a heavy truck steer axle.

Heavy truck air brake systems are regularly examined by mechanics, drivers, and commercial motor vehicle inspectors. For example, vehicles stopped at State Patrol Safety and Weight Enforcement Facilities often undergo a standardized inspection that is common throughout North America. Specially-trained officers manning these facilities check each component at every wheel end to ensure that no brake is out of adjustment. If problems are found, the vehicle may be placed out of service until repairs are made. If such a vehicle is involved in a serious crash, any reduction in braking efficiency should be analyzed by a crash reconstructionist.





In the event that a catastrophic failure causes air to be lost, a large spring in the brake chamber forces out the pushrod to stop or hold the vehicle. This is designed to bring the vehicle to a stop should the system be compromised. These springs are also used by the driver as a parking brake when the vehicle is not is use. When the system has air pressure, these springs are held back. If air cannot be supplied to the brake chambers to remove the spring pressure, it is necessary to mechanically cage the spring to release the brake. This is done by inserting a caging bolt into the chamber and physically compressing the spring. Most tow companies have the proper bolts and tools for performing this operation. Outside of supplying air back to the system, caging is the only way to properly release the brake and move the vehicle without spoiling evidence. Other methods such as disconnecting components or making adjustments to the slack adjuster will prevent the system from being inspected for compliance and braking efficiency.



Fox Valley Technical College Instructor Mike Farrell demonstrates the proper methodology for caging a brake. The caging bolt is tightened, thereby compressing the internal spring.

#### **ELECTRONIC DATA**

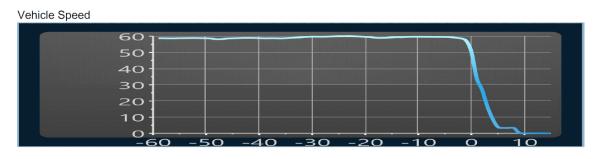
For over 15 years, investigators have been able to retrieve information surrounding crash events from the airbag control modules employed by light vehicles. While most large commercial vehicles do not have airbags, it is similarly possible to obtain electronic information from a variety of different systems. As is with passenger cars, it is important to follow proper evidence collection and preservation protocol to ensure that data are not inadvertently erased.

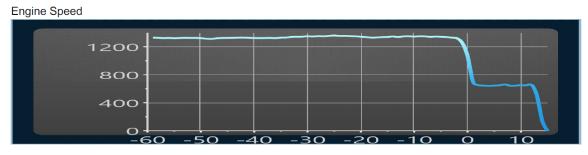
Engine and system operations in heavy vehicles are predominantly computer controlled. The Engine Control Module (ECM), for example, ensures that the engine is running as efficiently as possible. A separate Anti-Lock Brake System (ABS) Electronic Control Unit (ECU) is tasked with monitoring individual wheel speeds and activating the ABS as needed. Other systems, such as Meritor On-Guard, use radar technology to monitor nearby traffic. If the system detects vehicles slowing ahead of the truck, it will actively apply the brakes to slow the vehicle. For each of these controllers, when an event is detected, data concerning the system operation may be written.



The type of data stored by these systems may include information surrounding a hard brake application, information surrounding the last time the vehicle came to a stop, and information surrounding a diagnostic fault. Detroit Diesel and Mercedes Benz ECMs will even show the time and date when the vehicle was being driven for the previous 30 days. However, because most electronic systems are not specifically designed to be crash data recorders, information is not always permanently stored and locked. For example, last stop data is generally overwritten then the vehicle is again moved. In other cases, the ECM or ECU must see an actual turning off of the ignition key to save data. Certain Mack ECMs require a specific order of a parking brake application followed by a physical key off. The implication here is that data can be very easily erased or overwritten if proper procedures are not followed.

In the example below from a Cummins Engine, the ECM captured data surrounding a hard braking event. The information includes vehicle speed, engine speed, brake status, and other parameters not shown here for 60 seconds prior to the event and 10 seconds after. The record shows that the truck was travelling at approximately 60 mph before the driver input a heavy brake application and brought the vehicle to s stop.







To ensure that electronic data are not lost, investigators should check that the parking brake is set and the ignition is turned off as soon as possible in the scene documentation process. Efforts should then be made to see that the ignition key is secured. As long as the system is shut down, any data stored in electronic systems will be preserved. If the battery is to be disconnected, emergency response personnel should wait at least a minute following the physical key off. Most large commercial trucks manufactured since the late 1990s and early 2000s are capable of storing information that may be useful to collision investigators. In addition, information contained in ECMs and ECUs is often beneficial to inspectors when looking at driver hours-of-service and other regulatory issues.

#### **RESOURCES**

All Wisconsin State Patrol commercial motor vehicle inspectors have been specially trained in the examination of heavy truck air brake systems. Several inspectors are also qualified and have the tools to rebuild air brake components that have been heavily damaged in a collision. In addition, each State Patrol region has inspectors who are able to image electronic data from large trucks and buses. These officers are a tremendous resource and can be called upon for questions or to provide assistance.





Spring 2016



### **WE WANT YOU!**



The Wisconsin Department of Transportation's (WisDOT) Traffic Incident Management Enhancement (TIME) Program is once again looking for new Traffic Incident Management (TIM) instructors. Currently, the TIME program has 78 instructors that have taught over 82 4-hour responder classes and trained 2,068 responders since March of 2015.

In order to expand the instructor pool as well as address future program requests, the TIME Program has once again requested FHWA to present a 12-hour "Train-the-Trainer" course. With the support and funding of the TIME Program, WisDOT is proud to announce that we are currently accepting applications for this 12-hour FHWA National Traffic Incident Management Responder Training Program.

With the addition of the new pool of TIM instructors, the TIME program should be able to better cover all four corners of the state without any instructor having to travel too far from their home or office. In addition, it will also afford the program more options for instructors within any given region.

In an effort to improve the Instructor Program, starting in 2015, "approved" TIME Program Instructors are required to: 1) Successfully complete a 12-hour Federal Highway Administration (FHWA) "Train-the-Trainer" course; 2) Instruct at least one 4-hour Responder course per year; and 3) Attend an annual 2-hour "Instructor Update" sponsored by the TIME Program. These new requirements have resulted in improvements to the consistency of instruction, the documentation of responders trained and the overall quality of instruction.

The FHWA training will be held **July 26-27**, **2016** at the Wisconsin State Patrol Academy (WSPA) near Tomah, WI. Room and meal costs associated with attendance at the training will be covered by the TIME Program. Attendees will be responsible for their own transportation to and from the WSPA. Attendees will not need to bring any responder-related equipment to participate in this training. The majority of the training will be in the classroom.

Attendees will be selected from the list of applicants based on a number of factors. Some of the factors include, but are not limited to: applicant's responder discipline, residence of the applicant, length of service within the respective discipline, instructor history and others. There is no compensation available for TIME Program instructors. The commitment to become a TIME Program Instructor will require a dedication to TIM principles and philosophy and a commitment and desire to instruct other responders. The applicant should have a strong desire to teach others and pass their knowledge and experience to the student(s). The students will then have the ability to make any incident scene the safest possible for all responders through the proper application of TIM principles. Please complete the below application and return it to the TIME Program by no later than 4:00 PM on Friday, May 13, 2016.

You can mail, fax or scan and email the completed application.

Click here for application

U.S. Mail
The TIME Program
433 W. St. Paul Avenue – Suite 300
Milwaukee, WI 53203
FAX
414.227.2164
E-mail
TimeProgram@dot.wi.gov



#### The WI Towing Association Supports TIM Training for all Members

On March 19, 2016, the Board of Directors for the Wisconsin Towing Association (WTA) voted to recommend to all of WTA's 150 members that they take a 4-hour TIM responder class.

The TIME program had learned that as of January 1, 2016, the state of Illinois requires all towing and recovery professionals that work in Illinois be trained in TIM. After learning of this law in Illinois, the TIME program asked the WTA if they would support suggesting to their membership that all members in Wisconsin be voluntarily trained in TIM? The WTA overwhelmingly supported the idea. WTA President Shawn Topel of Topel's Truck Center in Lake Mills stated that if all towing and recovery personnel were TIM trained, it would "raise the bar for all towers across the state". President Topel brought the issue to the WTA's March board meeting and the suggestion passed unanimously.

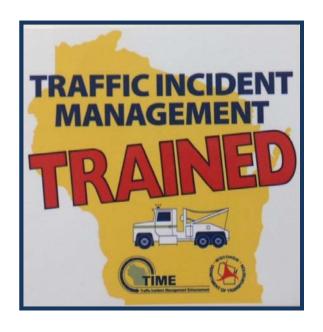
A main focus of TIM is communication. If everyone understands each other's roles and responsibilities at an incident scene, communicates their ideas, suggestions or best practices, everyone will be safer and everyone will be able to clear an incident sooner.

The TIME program created a list of scheduled trainings across the state and the WTA is posting the list on their website. We hope to see a lot more of WTA towing and recovery professionals at all future TIM trainings.





#### **TIM Stickers for Towing and Recovery**



After learning about the state of Illinois' requirement to have all towers in the state required to be TIM trained, the TIME program developed an idea to acknowledge their initiative to become TIM trained. The program would provide a little recognition through the creation of a "TIM Trained" sticker specifically for Towing and Recovery Professionals in Wisconsin. The sticker at left will be given to any tower who attends or already has attended a TIM class. The program will provide the tower with as many stickers as they have trucks.

This is just a small acknowledgement of their commitment to safety for all responders and how they are "raising the bar" within their profession by being TIM trained.



# Wisconsin is Getting Closer to Achieving FHWA's Goal of Obtaining 20% of All Responders Trained in TIM by May 31, 2016!

Wisconsin is inching closer to achieving FHWA's goal of having 20% of all responders trained in the state by **May 31, 2016.** FHWA has identified 27,081 responders in the state of Wisconsin. Their goal of 20% is 5,416. As of April 1, 2016, we have 4,469 responders trained. That means we need 947 to achieve our goal. With the 18 TIM responder classes we already have scheduled, and counting the approximately 350 law enforcement recruits that are currently in academies across the state that will be trained in TIM, and with a little luck, we are confident that we will obtain the 5,416. Once we obtain that goal, we will be one of less than 20 states in the country to do so. We are currently ninth in the country in the number of responders trained. That is pretty good since we are 20<sup>th</sup> in population.

If you or your agency are interested in hosting a 4-hour responder class, please email the TIME Program at: <a href="mailto:timeprogram@wi.dot.gov">timeprogram@wi.dot.gov</a> or contact TIME Program Manager David L. Spakowicz at 414.225.3729 <a href="mailto:david.spakowicz@dot.wi.gov">david.spakowicz@dot.wi.gov</a>.

There is **no cost** for the training and the TIME Program will supply all of the manuals, CDs and Certificates of Completion for all participants.



### **SAVE THE DATE**

### The 42<sup>nd</sup> Annual Governor's Conference on Highway Safety

August 23-25, 2016 KI Center – Green Bay, Wisconsin

The TIME Program is once again supporting the Annual Governor's Conference on Highway Safety by developing and supporting 10 TIM-related presentations at this year's conference. The program has developed some great topics for the 2016 conference. The agenda should be published by mid-May.

Please consider joining us and your fellow responders in Green Bay.





### 2016 Remaining TIME Meeting Schedule

April 20, 2016	9:00 AM – 12:00 PM		
Northeast Region	WIS 441 Tri-County Construction Project Office		
Southern US 41/STH 441	W6214 Aerotech Drive, Appleton, WI 54914		
April 28, 2016	6:00 PM - 8:30 PM		
Southwest Region	WisDOT SW Region I-39/I-90 Project Office		
Edgerton	111 Interstate Blvd., Edgerton, WI 53534		
May 11, 2016	6:00 PM - 8:30 PM		
North Central Region	Waushara County Courthouse		
Wautoma	209 S. Saint Marie Street, Wautoma, WI 54982		
May 12, 2016	6:00 PM - 8:30 PM		
North Central Region	WI DNR		
Tomahawk	LeMay Forestry Center		
	518 W. Somo Ave., Tomahawk, WI 54487		
May 24, 2016	9:00 AM – 12:00 PM		
Southwest Region	WisDOT SW Region Madison Office, Rock / Dane Rooms		
Madison	2101 Wright Street, Madison, WI 53704		
May 26, 2016	9:00 AM – 12:00 PM		
Southeast Region	WisDOT Statewide Traffic Operations Center (STOC)		
Milwaukee	433 W. St. Paul Ave., Milwaukee, WI 53203		
September 8, 2016	9:00 AM – 12:00 PM		
Southeast Region	WisDOT Statewide Traffic Operations Center (STOC)		
Milwaukee	433 W. St. Paul Ave., Milwaukee, WI 53203		
October 5, 2016	9:00 AM – 12:00 PM		
Northwest Region	Superior WisDOT Office		
Superior	1701 N. 4 <sup>th</sup> Street, Superior, WI		
October 6, 2016	9:00 AM – 12:00 PM		
Northwest Region	Eau Claire County Sheriff's Office		
Eau Claire	710 Second Avenue, Eau Claire, WI 54307		
October 11, 2016	9:00 AM - 12:00 PM		
Northeast Region	Brown County Project Office		
Northern US 41/US 141/STH 172	Duck Creek Room		
	1940 W. Mason St., Green Bay, WI 54303		
October 13, 2016	9:00 AM – 12:00 PM		
North Central Region	Northcentral Technical College		
Wausau	1000 W. Campus Drive, Wausau, WI 54401		
October 13, 2016	6:00 PM – 8:30 PM		
North Central Region	Oneida County Sheriff's Office		
Rhinelander	2000 E. Winnebago Street		
October 40, 2040	Rhinelander, WI 54501		
October 19, 2016	9:00 AM – 12:00 PM WIS 441 Tri-County Construction Project Office		
Northeast Region Southern US 41/STH 441	W6214 Aerotech Drive, Appleton, WI 54914		
October 26, 2016	9:00 AM – 12:00 PM		
Southwest Region	WisDOT SW Region I-39/I-90 Project Office		
Edgerton	111 Interstate Blvd., Edgerton, WI 53534		
November 2, 2016	9:00 AM – 12:00 PM		
Southwest Region	WI State Patrol – De Forest Post		
De Forest	911 W. North Street, De Forest, WI 53532		
November 10, 2016	9:00 AM – 12:00 PM		
Southwest Region	WisDOT SW Region Office, Conference Rooms B19 & B20		
La Crosse	3550 Mormon Coulee Rd., La Crosse, WI 54601		
November 16, 2016	9:00 AM – 12:00 PM		
Northeast Region	Manitowoc County Sheriff's Department		
I-43 & Lakeshore Counties	1025 South 9th Street, Manitowoc, WI 54220		
December 1, 2016	9:00 AM – 12:00 PM		
Southeast Region	WisDOT Statewide Traffic Operations Center (STOC)		
Milwaukee	433 W. St. Paul Ave., Milwaukee, WI 53203		
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### 2016 4-Hour TIME Responder Training Sessions

Date	Location	Time	Hosting Agency	POC
4/16/16	Bear Creek	8:00a – 12:00p	Bear Creek Fire Department	Ken Baierl BCFD1903@gmail.com
4/18/16	Juda	6:00p – 10:00p	Juda Fire Department	Steve Isely 608.558.0434 cisely@wekz.net
4/23/16	Menomonee Falls	9:00a – 1:00p	Roskopf's Towing	Jeff Roskopf 414-254-6538
4/25/16	Portage	6:00p – 10:00p	Portage Fire Department	Craig Ratz 608.697.7062 craig.ratz@portagewi.gov
4/26/16	Mauston	8:00a – 12:00p	Juneau County Sheriff's Office	Captain Gary Pederson 608-847-9517 jailcapt@co.juneau.wi.us
4/26/16	Mauston	12:00p – 4:00p	Juneau County Sheriff's Office	Captain Gary Pederson 608-847-9517 jailcapt@co.juneau.wi.us
4/27/16	Mauston	8:00a – 12:00p	Juneau County Sheriff's Office	Captain Gary Pederson 608-847-9517 jailcapt@co.juneau.wi.us
4/29/16	Statewide Traffic Operations Center Milwaukee	8:00a – 12:00p	WisDOT (Empire Room)	Naydene Olson 414-227-2155 Naydene.Olson@dot.wi.gov
5/13/16	WisDOT – Green Bay Duck Creek Rm.	8:00a – 12:00p	WisDOT	Naydene Olson 414-227-2155 Naydene.Olson@dot.wi.gov
5/21/16	Elkhorn	8:00a – 12:00p	Walworth County Sheriff's Department	Lt. Todd Neuman 262.741.4680 tneuman@co.walworth.wi.us
5/25/16	Statewide Traffic Operations Center Milwaukee	8:00a – 12:00p	WisDOT (Empire Room)	Naydene Olson 414-225-3729 Naydene.Olson@dot.wi.gov
6/22/16	New Franken	6:00p – 10:00p	New Franken Fire Department	John Jenquin 920-615-2579 nffd27@gmail.com
9/10/16	Eau Claire	8:00a – 1:00p	Chippewa Valley Technical College	Red Van Ert 715-855-7561 gvanert1@cvtc.edu